

REMARKS

The claims are 13 to 15.

Claims 13 to 15 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Kasahara et al. (U.S. 6,165,606) in view of Suenaga et al. (U.S. 6,133,170).

This rejection is respectfully traversed.

Kasahara et al. (U.S. 6,165,606) discloses an ink jet recording sheet comprising a support having thereon at least one recording layer. The support is a paper support in which both sides are covered with a polyolefin resin. The recording layer comprises (a) a hydrophilic binder, (b) inorganic fine particles having an average diameter of primary particle of 30 nm or less, (c) a water-soluble cation mordant having an average molecular weight of 50,000 or less and having a repeating unit which has at least one quaternary ammonium base in its molecular structure, and (d) a hardening agent comprising an epoxy group or boric acid which is capable of cross-linking with the hydrophilic binder [claim 1].

The ink jet recording paper of Kasahara et al. has great ink absorbability, since it has a void-containing layer as the recording layer [col. 2, lines 1 to 3; col. 14, lines 34 to 37; col. 23, lines 40 to 43]. The recording layer is formed by coating a coating solution on the recording side surface of the paper support [col. 17, line 40 to col. 18, line 8].

Therefore, the contention of the Official Action that Kasahara does not disclose that the recording paper has to be coated, is completely mistaken.

The Official Action states that the layer has an absorption time expressed in liquid transfer volume when the ink absorbing side of the recording sheet is measured by J. Tappi No. 51-87. In fact, the above-mentioned "layer" means the recording layer is indeed the void-containing layer. The liquid transfer volume of Kasahara et al. is a property of the recording layer coated on the surface of the paper, and not a property of the paper itself.

The Official Action further states that Kasahara et al. discloses the recording paper comprises pulp such as LBKP and NBKP. In fact, however, this portion of Kasahara et al.

merely describes the raw material of the paper support, and not the raw material of the whole of the ink jet recording paper.

Even if the mercerized pulp taught by Suenaga et al. is used in the ink jet recording paper of Kasahara et al., one would merely arrive at an ink jet recording paper comprising a paper support containing mercerized pulp having thereon at least one coated recording layer (void-containing layer) which has an absorption time expressed in liquid transfer volume.

The paper resultant from such combination of Kasahara et al. and Suenaga et al. is completely unsuggestive of the ink jet recording paper of the present invention wherein no coating layer excellent in high ink absorbing capacity comprising a void-containing layer is formed on the surface of the paper.

In reply to the comment that if a product in a product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the product was made by a different process, it is clear from the foregoing that the presently claimed product is not the same as or obvious from the prior art product.

With regard to the contention that the present claims are product-by-process claims, this is clearly incorrect since no process steps are required.

While the liquid transfer length is recited, it is merely a parameter and not a process step although steps need to be taken to determine the liquid transfer length. Similarly, merely by reciting a temperature in the claim, this does not convert the claim into a process or product-by-process claim merely because it is necessary to determine the temperature with a thermometer.

With regard to the terminology “no coating applied for improving ink absorption”, this is merely a property of a coating which is excluded by the claim terminology and not a statement of desired results of the claimed product.

Lastly, the “consisting essentially of” format of the present claims clearly excludes components which materially alter the operation of the invention from the standpoint of operability or patentability and such format excludes the coating of Kasahara et al.

For the foregoing reasons, the rejection on prior art is untenable and should be withdrawn.


No further issues remaining, allowance of this application is respectfully requested.

If the Examiner has any comments or proposals for expediting prosecution, please contact undersigned at the telephone number below.

Respectfully submitted,

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